CDF Operations Report

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CDF Weekly Meeting
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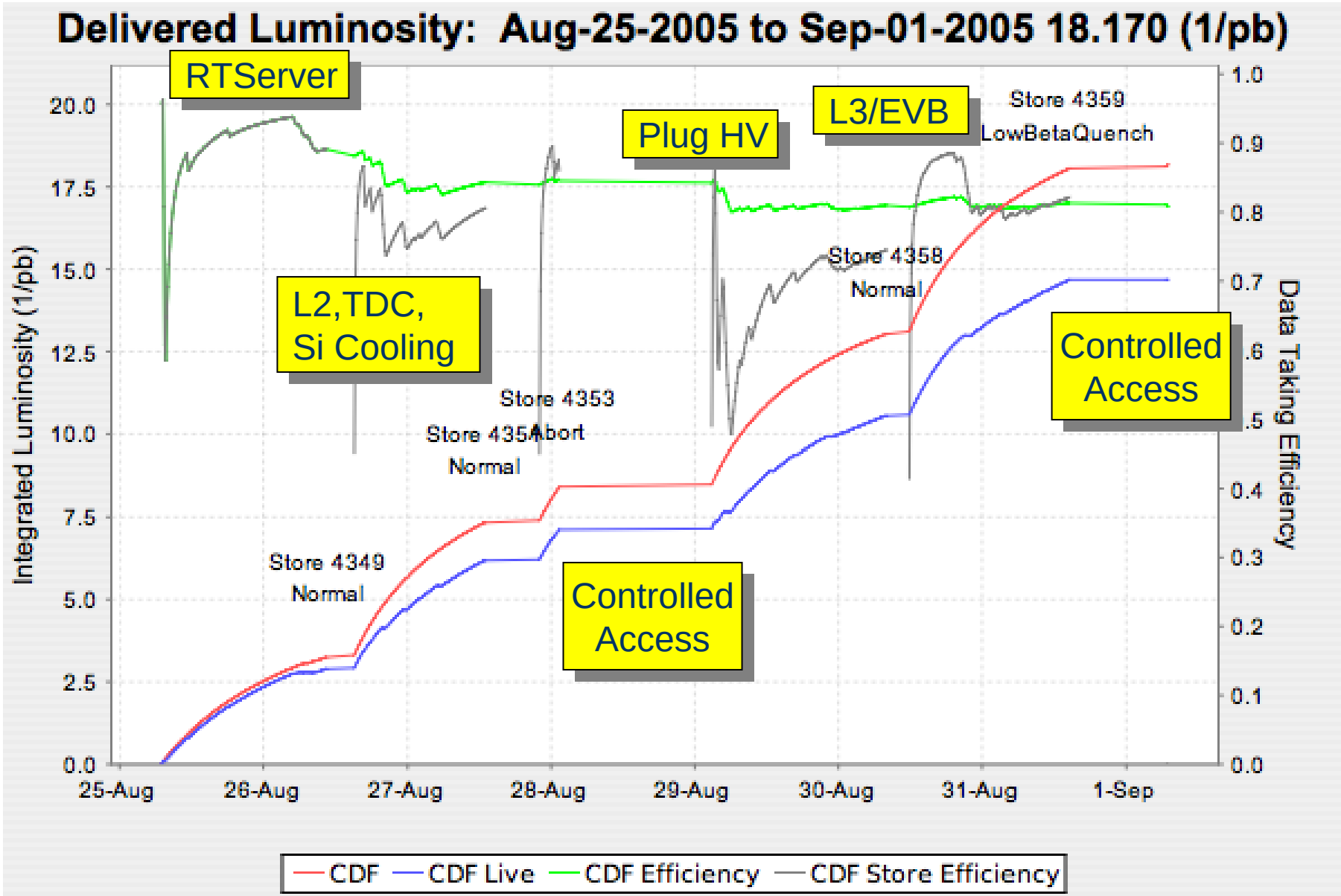
Store Summary

Store	start Date	time [hours]	initial lumi [E30]	int. lumi delivered [pb^{-1}]	live lumi [pb^{-1}]	GoodRun w/ si [pb^{-1}]	comments
4349	8/24	34.6	137.0	5.55	4.61 83%	4.42 80%	RT server problem, TeV studies
4351	8/26	21.9	120.3	4.08	3.31 81%	2.55 62%	L2 trigger, COT TDC, Silicon cooling trip
4353	8/27	3.5	113.0	1.09	0.94 86%	0.70 64%	Silicon cooling trip
4358	8/29	29.2	118.3	4.61	3.43 75%	2.44 53%	Plug HV trip, End-of-Store tests
4359	8/30	26.9	133.4	5.03	4.05 81%	3.72 74%	L3/EVB problem, Electron lens trip,
4363	9/1		97.1	In progress			
Total	8/24-8/30	116.0	124.4	20.4 pb^{-1}	16.3pb^{-1} 80%	13.8pb^{-1} 68%	


Delivered Luminosity: Aug-25-2005 to Sep-01-2005 18.170 (1/pb)
RTServer
L2,TDC,
Si Cooling
Plug HV
L3/EVB
Store 4359
LowBetaQuench
Store 4358
Normal
Store 4353
Store 4354 Abort
Normal
Store 4349
Normal
Controlled
Access
Controlled
Access
Integrated Luminosity (1/pb)
Data Taking Efficiency
20.0
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
1.0
0.9
0.8
0.7
.6
.5
0.4
0.3
0.2
0.1
0.0
25-Aug
26-Aug
27-Aug
28-Aug
29-Aug
30-Aug
31-Aug
1-Sep
CDF
CDF Live
CDF Efficiency
CDF Store Efficiency

CDF Operations [1]

- Silicon
  - Wedges tripped due to fiber optic link problem (fixed in access)
  - Faulty relative humidity sensor near detector caused whole detector trip due to interlock firing.
  - Shift crew hit crash button and all silicon racks were tripped off
  - → Recovery was challenging but successful – no damage done
  - Replaced ISL power supply module during controlled access, but it did not work
- COT
  - Replaced the TDCs in b0cot11 with upgrade TDCs
  - 12 out of 20 crates of TDCs have been upgraded
- Solenoid
  - Helium compressor tripped off when Feeder 47 glitched
  - Fully recovered a couple hours during store
- Calorimeter
  - One plug CAEN crate replaced, one lower HV module replaced, and two HV modules were replaced.
- Muon System
  - BMU SW work to isolate a bad HV section

CDF Operations [2]

- Trigger
  - Both “Unified” trigger table [3_07] and next generation table [3_08] has been tested up to 135E30
  - We’re on our way to a single table up to 150E30

- New Hardware Event Builder
  - Used in data taking for one week now and performing very well
  - New system is pushing for 1kHz rate (old was 400 Hz) and 500 MB.s throughput
  - To reach these goals, end-of-store and between-store tests will continue
  - Successed silicon d-mode calibration with new EVB

- Silicon Vertex Trigger Upgrade
  - Additional 4 TF++ boards in wedges 4,6,8 and 10 installed and tested.
  - → same eff and failure rates as the old TF
  - Installed TF++ boards for all the wedges, TF++ is now the default SVT track finder for the current store
  - See Jahred’s talk

Run II Integrated Luminosity